What is claimed is:

1. A carcass ply producing apparatus for producing a carcass ply constituting a carcass layer of a tire comprising

a supply head for supplying one or a plurality of ply cords,

a head driving mechanism for reciprocating said supply head along a widthwise direction of said carcass ply,

a sticking body having a sticking surface to which said ply cord supplied by said supply head is stuck,

a sticking body driving mechanism for moving said sticking surface of said sticking body along a longitudinal direction of said carcass ply, and

a moving amount controlling mechanism capable of controlling a moving amount of said sticking surface with respect to a moving amount of said supply head, wherein

when said ply cord is supplied along the widthwise direction of said carcass ply, a disposition angle of said ply cord with respect to said longitudinal direction can be changed.

2. The carcass ply producing apparatus according to claim 1, wherein said sticking body is a rotation drum having an outer peripheral surface to which said ply cord is stuck.

3. The carcass ply producing apparatus according to claim 1, wherein said sticking body is a flat-plate like tray having a surface to which said ply cord is stuck.

4. The carcass ply producing apparatus according to claim 1, wherein said sticking body is a transfer conveyer having a transfer surface to which said ply cord is stuck.

5. A carcass ply producing method for producing a carcass ply constituting a carcass layer of a tire comprising

a step for supplying one or a plurality of ply cords by a supply head,

a step for reciprocating said supply head along a widthwise direction of said carcass ply,

a step for sticking said ply cord supplied by said supply head to a sticking body having a sticking surface,

a step for moving said sticking surface of said sticking body along a longitudinal direction of said carcass ply, and

a step for controlling a moving amount of said sticking surface with respect to a moving amount of said supply head, wherein

in said step for reciprocating said supply head, a disposition angle of said ply cord with respect to said longitudinal direction can be changed.

6. The carcass ply producing method according to claim 5, wherein said sticking body is a rotation drum having an outer peripheral surface to which said ply cord is stuck.

7. The carcass ply producing method according to claim 5, wherein said sticking body is a flat-plate like tray having a surface to which said ply cord is stuck.

8. The carcass ply producing method according to claim 5, wherein said sticking body is a transfer conveyer having a transfer surface to which said ply cord is stuck.

9. A pneumatic tire having two or more carcass layers for reinforcing between a pair of annular beads, and a reinforcing layer having a cord arranged on an outer peripheral surface of said carcass layer below a tread surface in a circumferential direction of a tire, and a flattening of said pneumatic tire being 70% or less, wherein

said cord constituting said carcass layers are arranged substantially in a radial direction in a region of the tire from said bead to a position near a tire maximum width, and from that position to a grounding end, an angle with respect to a circumferential direction of the tire is gradually changed, and the angle is 20 to 60° with respect to the circumferential direction of the tire in the vicinity of said grounding end, and the angle is 20 to 50° at the tread surface,

said carcass layers are laminated at angle substantially symmetrical with respect to a tire equator line, and

a tensile modulus per width of said reinforcing layer is 1.2 times or more of said carcass layers.

10. The pneumatic tire according to claim 9, wherein

said reinforcing layer includes a central portion having a width of 45 to 80% of entire width of said tread surface located at a center of and below said tread surface, and opposite

sides having tensile modulus per width which is lower than that of said central portion.

11. The pneumatic tire according to claim 10, wherein the tensile modulus per width of said central portion is 1.2 times or more of a tensile modulus per width of said side.

12. A pneumatic tire having two or more carcass layers for reinforcing between a pair of annular beads, wherein when a region where an angle formed between cords constituting said carcass layers and a circumferential direction of said tire is 90±10° is defined as a radial region, and a region where said cords in upper and lower layers intersect while an angle formed between said cords and the circumferential direction of the tire is 10 to 60° is defined as a bias region, a region including a position near a tire maximum width includes said radial region, and said bias region is included in any of a region between said radial region and said bead, and a region between said radial region and a tire equator line.

13. The pneumatic tire according to claim 12, wherein a region having 5 to 30% of height from a lower end with respect to height of carcass of a tire cross section is mainly said bias region, a region of 40 to 65% is mainly said radial region, and a region of 75 to 95% is mainly said bias region.

14. The pneumatic tire according to claim 12, wherein

a region including the tire equator line further include said radial region reinforced by a belt layer, and said bias region is included in any of intermediate region between that radial region and said radial region near the tire maximum width.

15. The pneumatic tire according to claim 14, wherein a region having 5 to 30% of height from a lower end with respect to height of carcass of a tire cross section is mainly said bias region, a region of 40 to 65% is mainly said radial region, a region of 75 to 95% is mainly said bias region, and a tread is mainly said radial region.